We claim:

1. Apparatus for supporting and retaining particulate material in a radial flow vessel having inlet and outlet openings for a fluid which is adapted to pass through the vessel, one of said inlet and outlet openings being in communication with an annular space defined on its outer side by the inner wall of the vessel and the other of said inlet and outlet openings being in communication with the interior of an axially mounted member whose outer surface has openings therein which are smaller than the particulate materials supported thereby; a ring of separate, hollow conduit members positioned against the inner wall of said cylindrical vessel and arranged in a vertical direction to fill said annular space, said separate hollow conduit members each having an internal cross-sectional area defined by a pair of generally radially extending side wall portions and an inner wall portion integrally joined to each of said pair of generally radially extending side wall portions, the outer ends of said generally radially extending side wall portions of adjacent conduit members being in contact with said inner wall, said pair of generally radially extending side wall portions on at least some of said conduit members being angled away from each other in a generally radially outward direction but at an included angle which is less than if they were truly radial relative to the axis of the vessel, the included angle being sufficiently small as to permit individual conduit members to be moved inwardly relative to adjacent conduit members during an installation or replacement operation, said inner wall portions of said conduit members having at least a portion of their surface formed by screen members which have flow openings which are of a dimension less than the diameter of the particulate material which forms a uniform thickness particulate bed and which is located in an annular space between the inner wall portions of the conduit members and the outer wall of the axially mounted member.

2. Apparatus in accordance with claim 1 wherein the end portions of the radially outwardly extending side wall portions of each conduit member are joined by an outer wall portion.

3. Apparatus in accordance with claim 2 wherein the side wall portions and the outer wall portion of said conduit members are formed from a single sheet of metal.

4. Apparatus in accordance with claim 1 wherein said screen members comprise parallel wires spaced to form slots, said parallel wires being arranged in a vertical direction.

5. Apparatus in accordance with claim 1 wherein the inner wall portions are equidistant from the outer wall portions along their length.

6. Apparatus in accordance with claim 1 wherein said screen members which form at least a portion of said inner wall portions are retained between flange portions extending from each of said side wall portions and an angle member which is fixed to said side wall portions.

7. Apparatus in accordance with claim 1 wherein the radially outer ends of said generally radially extending side wall portions which contact the inner wall of said vessel are not joined to each other.

8. Apparatus in accordance with claim 1 wherein the conduits have a cross-sectional area and shape which is smaller than an opening in the top of the vessel, whereby individual conduits can be inserted into or removed from the vessel through said opening.

9. Apparatus in accordance with claim 1 wherein said ring of separate hollow conduit members which are positioned against the inner wall of said cylindrical vessel are slightly spaced from each other sufficiently to accommodate manufacturing tolerances or thermal expansion during operation of said radial flow vessel.

10. Apparatus in accordance with claim 9 wherein said conduit members are spaced from each other by a distance less than 2% of the distance between the outer ends of the side wall portions of each of said conduit members.

11. Apparatus in accordance with claim 1 wherein adjacent conduit members have their pairs of generally radially side wall portions at different included angles.

12. Apparatus in accordance with claim 11 wherein the adjacent side wall portions of adjacent conduit members are generally parallel to each other whereby the total internal cross-sectional area of all of the conduit members will be maximized.

13. Apparatus in accordance with claim 12 wherein alternating conduit members have generally trapezoidal and generally rectangular cross-sections.

14. Apparatus in accordance with claim 9 wherein vertical sealing plates are attached to at least one side edge portion of the inner wall portion of at least some of said conduit members to prevent particulate material from moving into the space between adjacent conduit members.

15. Apparatus in accordance with claim 13 wherein vertical sealing plates are attached to each side edge of the inner wall portion of the conduit members that have a generally rectangular cross-section, said vertical sealing plates having sealing portions extending over the side edges of the inner wall portions of adjacent conduit members which have a trapezoidal shape.

16. Apparatus in accordance with claim 1 wherein all of the conduits have a generally trapezoidal shaped cross-section and generally radially extending side wall portions which are angled away from each other at an included angle which is less than if they were truly radial relative to the axis of the vessel.

17. Apparatus in accordance with claim 16 wherein a vertical sealing plate is attached to the same side edge of the inner wall portion of each of the conduit members that have a generally trapezoidal cross-section, each of said vertical sealing plates having a sufficient width as to provide a sealing portion which extends over the side edge of the inner wall portions of an adjacent conduit members, whereby the gap between adjacent conduit members will be covered.